

WHAT IS CLAIMED IS:

1. An electronic circuit having a plurality of unit circuits, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

a second transistor having a third terminal, a fourth terminal, and a second control terminal, the third terminal being connected to the first control terminal;

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal; and

a third transistor having a fifth terminal and a sixth terminal, the fifth terminal being connected to the second electrode,

wherein the fourth terminal is connected to a first power source line in common with the fourth terminals of other unit circuits of the plurality of unit circuits, and

wherein the electronic circuit further comprises a control circuit for setting a potential of the first power source line to a plurality of potentials or controlling electrical disconnection and electrical connection between the first power source line and a driving voltage.

2. An electronic circuit having a plurality of unit circuits, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

a second transistor having a third terminal, a fourth terminal, and a second control terminal, the third terminal being connected to the first control terminal;

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal; and

a third transistor having a fifth terminal and a sixth terminal, the fifth terminal being connected to the second electrode,

wherein the fourth terminal is connected to a first power source line in common with the fourth terminals of other unit circuits of the plurality of unit circuits,

wherein the second terminal is connected to a second power source line, and

wherein the electronic circuit further comprises a control circuit for setting a potential of the first power source line to a plurality of potentials or controlling electrical disconnection and electrical connection between the first power source line and a driving voltage.

3. An electronic circuit according to Claim 1, wherein the second control terminal is connected to the third terminal.

4. An electronic circuit according to Claim 1, wherein each of the unit circuits does not comprise any transistor other than the first transistor, the second transistor, and the third transistor.

5. An electronic circuit according to Claim 1, wherein the conductive types of the first transistor and the second transistor are equal to each other.

6. An electronic circuit according to Claim 1, wherein an electronic element is connected to the first terminal.

7. An electronic circuit according to Claim 6, wherein the electronic element is a current-driven element.

8. An electronic circuit according to Claim 1, wherein the control circuit is a fourth transistor having a seventh terminal and an eighth terminal, and

wherein the seventh terminal is connected to the fourth terminal through the first power source line, and the eighth terminal is connected to the driving voltage.

9. An electronic circuit according to Claim 1, wherein the second power source line can be also electrically connected to the driving voltage.

10. An electronic circuit according to Claim 1, wherein a threshold voltage of the first transistor is set not to be lower than a threshold voltage of the second transistor.

11. An electronic circuit having a plurality of first signal lines, a plurality of second signal lines, a plurality of power source lines, and a plurality of unit circuits, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

a second transistor having a third terminal, a fourth terminal, and a second control terminal, the third terminal being connected to the first control terminal;

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal; and

a third transistor having a fifth terminal and a sixth terminal, the fifth terminal being connected to the second electrode,

wherein the second control terminal is connected to the third terminal, and

wherein the third control terminal is connected to a corresponding first signal line of the plurality of first signal lines.

12. An electronic circuit according to Claim 11, wherein the fourth terminal is

connected to a first power source line in common with the fourth terminals of other unit circuits of the plurality of unit circuits,

wherein the second terminal is connected to a second power source line, and

wherein the electronic circuit further comprises a control circuit for setting a potential of the first power source line to a plurality of potentials or controlling electrical disconnection and electrical connection between the first power source line and a driving voltage.

13. An electronic circuit according to Claim 11, wherein the conductive types of the first transistor and the second transistor are equal to each other.

14. An electronic circuit according to Claim 11, wherein an electronic element is connected to the first terminal.

15. An electronic circuit having a plurality of unit circuits, each of the plurality of unit circuits comprising:

a holding element for holding a signal as charge;

a switching transistor for controlling transmission of the signal to the holding element;

a driving transistor in which an electrically conductive state is set on the basis of the charge held in the holding element; and

an adjusting transistor for setting a control terminal of the driving transistor to a predetermined potential before the transmission of the signal to the holding element,

wherein the electronic circuit further comprises a control circuit for supplying a driving voltage to the adjusting transistors of at least two unit circuits of the plurality of unit circuits.

16. An electronic circuit according to Claim 15, wherein an electronic element is connected to the driving transistor.

17. A method of driving an electronic circuit having a plurality of unit circuits, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

a second transistor having a third terminal and a fourth terminal, the third terminal being connected to the first control terminal; and

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal,

the method comprising:

a first step of electrically connecting the respective third terminals of the plurality of unit circuits to a predetermined potential and setting the first control terminals to a first potential; and

a second step of varying a potential of the first control terminals from the first potential, by varying a potential of the second electrodes from a second potential to a third potential in a state in which the third terminals are electrically disconnected from the predetermined potential.

18. A method of driving an electronic circuit according to Claim 17, wherein at least for a time required to carry out the first step, the method is carried out in a state in which the potential of the second electrode is set to the second potential.

19. An electro-optical device having a plurality of data lines, a plurality of scanning lines, and a plurality of unit circuits, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

an electro-optical element being connected to the first terminal;

a second transistor having a third terminal and a fourth terminal, the third terminal being connected to the first control terminal;

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal; and

a third transistor having a fifth terminal, a sixth terminal, and a third control terminal, the fifth terminal being electrically connected to the second electrode,

wherein the fourth terminal is connected to a first power source line in common with the fourth terminals of other unit circuits of the plurality of unit circuits,

wherein the third control terminal is connected to a corresponding scanning line of the plurality of scanning lines,

wherein the sixth terminal is connected to a corresponding data line of the plurality of data lines, and

wherein the electro-optical device further comprises a control circuit for setting a potential of the first power source line to a plurality of potentials or controlling electrical disconnection and electrical connection between the first power source line and a driving voltage.

20. An electro-optical device having a plurality of data lines, a plurality of scanning lines, and a plurality of unit circuits, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control

terminal;

an electro-optical element being connected to the first terminal;

a second transistor having a third terminal and a fourth terminal, the third terminal being connected to the first control terminal;

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal; and

a third transistor having a fifth terminal, a sixth terminal, and a third control terminal, the fifth terminal being connected to the second electrode,

wherein the fourth terminal is connected to a first power source line in common with the fourth terminals of other unit circuits of the plurality of unit circuits,

wherein the second terminal is connected to a second power source line in common with the second terminals of other unit circuits of the plurality of unit circuits,

wherein the third control terminal is connected to a corresponding scanning line of the plurality of scanning lines,

wherein the sixth terminal is connected to a corresponding data line of the plurality of data lines, and

wherein the electro-optical device further comprises a control circuit for setting a potential of the first power source line to a plurality of potentials or controlling electrical disconnection and electrical connection between the first power source line and a driving voltage.

21. An electro-optical device according to Claim 19, wherein the second control terminal is connected to the third terminal.

22. An electro-optical device according to Claim 19, wherein the control circuit is a fourth transistor having a seventh terminal and an eighth terminal, and

wherein the seventh terminal is connected to the fourth terminal through the first power source line, and the eighth terminal is connected to the driving voltage.

23. An electro-optical device according to Claim 19, wherein each of the unit circuits does not comprise any transistor other than the first transistor, the second transistor, and the third transistor.

24. An electro-optical device according to Claim 19, wherein the conductive types of the first transistor and the second transistor are equal to each other.

25. An electro-optical device according to Claim 19, wherein a threshold voltage of the first transistor is set not to be lower than a threshold voltage of the second transistor.

26. An electro-optical device according to Claim 19, wherein the second power

source line can be also electrically connected to the driving voltage.

27. An electro-optical device according to Claim 19, wherein the electro-optical element is an EL element.

28. An electro-optical device according to Claim 19, wherein the electro-optical elements of the same color are arranged along the scanning lines.

29. A method of driving an electro-optical device in which a plurality of unit circuits are arranged correspondingly to intersecting portions of a plurality of scanning lines and a plurality of data lines, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

an electro-optical element being connected to the first terminal;

a second transistor having a third terminal and a fourth terminal, the third terminal being connected to the first control terminal; and

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal,

the method comprising:

a first step of setting the first control terminals to a first potential by electrically connecting the third terminals of a series of unit circuits including a third transistor of the plurality of unit circuits to a predetermined potential through the fourth terminal and a channel of the second transistor, a third control terminal of the third transistor being connected to one of the plurality of scanning lines; and

a second step of varying a potential of the second electrodes from a second potential to a third potential to vary a potential of the first control terminals from the first potential, by supplying a scanning signal for switching the third transistors into an ON state to the third control terminals of the series of unit circuits in order to switch the third transistors into the ON state and to electrically connect the third transistors to a corresponding data line of the plurality of data lines, and then applying a data signal supplied through the corresponding data line and the third transistors to the second electrodes,

wherein in the second step, a time period for applying the data signal to the second electrodes and a time period for electrically disconnecting the third terminals of the series of unit circuits from the predetermined potential are set such that at least parts thereof are overlapped.

30. A method of driving an electro-optical device in which a plurality of unit circuits are arranged correspondingly to intersecting portions of a plurality of scanning lines

and a plurality of data lines, each of the plurality of unit circuits comprising:

a first transistor having a first terminal, a second terminal, and a first control terminal;

an electro-optical element being connected to the first terminal;

a second transistor having a third terminal and a fourth terminal, the third terminal being connected to the first control terminal; and

a capacitive element having a first electrode and a second electrode, the first electrode being connected to the first control terminal,

wherein the fourth terminals of a series of unit circuits including a third transistor of which a third control terminal is connected to one scanning line of the plurality of scanning lines, of the plurality of unit circuits, are all connected to one first power source line of a plurality of first power source lines,

the method comprising:

a first step of setting the first control terminals to a first potential by electrically connecting the fourth terminals of the series of unit circuits to a predetermined potential; and

a second step of varying a potential of the second electrodes from a second potential to a third potential to vary a potential of the first control terminals from the first potential, by supplying a scanning signal for switching the third transistors into an ON state to the third control terminals of the series of unit circuits in order to switch the third transistors into the ON state and electrically connect the third transistors to a corresponding data line of the plurality of data lines, and then applying a data signal supplied through the corresponding data line and the third transistors to the second electrodes,

wherein in the second step, a time period for applying the data signal to the second electrodes and a time period for electrically disconnecting the fourth terminals of the series of unit circuits from the predetermined potential are set such that at least parts thereof are overlapped.

31. A method of driving an electro-optical device according to Claim 29, wherein at least for a time required to carry out the first step, the method is carried out in a state in which the potential of the second electrode is set to the second potential.

32. An electronic apparatus being equipped with the electronic circuit according to Claim 1.

33. An electronic apparatus being equipped with the electro-optical device according to Claim 19.